



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,936	05/23/2005	Stephen Robert Maunsell	1170/42213/136	7097
279	7590	10/07/2010		
CLARK HILL PLC 150 NORTH MICHIGAN AVENUE SUITE 2700 CHICAGO, IL 60601			EXAMINER HECKERT, JASON MARK	
			ART UNIT 1711	PAPER NUMBER
			NOTIFICATION DATE 10/07/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mkitz@clarkhill.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/510,936	<b>Applicant(s)</b> MAUNSELL ET AL.	
	<b>Examiner</b> JASON HECKERT	<b>Art Unit</b> 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 4-20, 23-32, 43-45 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 and 26-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-10, 18-20, 23-25, 43-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/17/10 has been entered.

### ***Response to Arguments***

1. Due to the applicant's amendments to the claims, the previous rejections are rendered moot.

2. Applicant has added limitations drawn to "intelligent" systems, wherein the controller controls a flower directing arrangement, which the examiner interprets as a bypass valve. To summarize, the bypass valve determines whether water is delivered to the softener, or bypassed and delivered to the tub. Such devices are established in the art. Newly cited art of Boirum teaches a bypass valve specifically for diverting the flow of water in a domestic water system to bypass a service unit such as a water softener. The examiner looked through the applicant's specification, but little information is present that describes how or when the valve/controller decides to open the valve. The specification merely states that the controller controls a bypass valve. The examiner believes that the applicant's device might further include an undisclosed sensor, however the examiner is largely confused as to how the applicant's device operates in the claimed manner.

Art Unit: 1711

3. The following rejection includes the new reference of Boirum, which teaches using a bypass valve to bypass a water softener based on a controlled/sensed condition. One of ordinary skill could adapt a well known three-way valve into the combination of Aisa in view of Iizuka, which would provide the obvious and expected result of permitting the water softener to be bypassed when its use is not needed. This is not considered to be a patentably distinguishable feature.

4. Based on a thorough review of the specification, the applicant alludes to the fact that the device is capable of intelligent blending but the structure and method of such a claimed feature is not presented in a detail that would allow one of ordinary skill to make the invention. It appears as if essential matter is either missing, or said matter would have been obvious to one of ordinary skill in the art.

5. If the applicant would like to discuss matters, the examiner is available for interview.

***Claim Rejections - 35 USC § 112***

6. Claim 1-10, 18-20, 23-32, 43-45 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Each independent claim includes language pertaining to a controller that can determine a proper ratio of water to deliver to the softener based on water supply hardness. However, the applicant does not specify how the controller works, what it senses, and how it arrives at a decision to intelligently blend the hardened water with softened water. The only features claimed are a controller and a valve. It appears as if essential matter is missing that would allow one of

Art Unit: 1711

ordinary skill to make the device, or, the matter missing would be obvious to one of ordinary skill. In the latter case, the device would not be found to be patentable.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 4-5, 7-10, 19-20, 23-25, 43-45 rejected under 35 U.S.C. 103(a) as being unpatentable over Aisa et al. (EP 1741991) in view of Iizuka and further in view of Boirum. Aisa teaches a washing appliance connected to a water supply via pipe 2 comprising a resin container R, which receives water from the water supply via pipe AL, a brine container having an inlet for the supply of salt S which receives water from the water supply via pipe AR, and control and metering means. The control means detects the hardness of water from the mains, and actively regulates the volume of water to be introduced into the brine container, and accordingly the resin container. Regulating device E.V. is disclosed as being a solenoid valve, not a pump. However, the examiner finds a pump to be a known substitution for a valve, as both achieve a desirable and predictable result of regulating fluid distribution and in this case achieve the same effect of controlling fluid supply to the brine and resin containers. Iizuka discloses that instead of a valve, as disclosed in Aisa, a pump 15 can be used to discharge salt water from chamber 14 to a water softening device 4 for regeneration of resins. Iizuka also discloses a control device 19 that controls the pump. Thus, using an active means such as a pump to deliver salt water to a resin tank was well known at the time of invention. Aisa teaches that it is well

Art Unit: 1711

known and obvious to control the flow of water to the resin and brine containers from a water regulating device based on water hardness sensed in the incoming water supply. Operation parameters of component E.V. are then controlled to regulate water softening. The opening of a valve or the duty of a pump are such parameters. Aisa also does not disclose a two-way flow valve, but does disclose a functional equivalent water distribution device 1 that has an outlet 8 directly to the washing tub, and another outlet 9 that connects to the resin container. Device 1 clearly has the ability to distribute water to various components of the washing machine.

Furthermore, water distributors are well-known components in the washing machine art. As stated previously, devices 1, E.V., and the controller control the ratio of water delivered to the softener based on the hardness sensed in the mains. Aisa discloses the use of solenoids. Iizuka also teaches a multi-way valve 6 than can control the delivery of water from the water softener and the mains. It is common in the art to direct softened water towards detergent dispenser, as the softened water aids the deterative benefit of detergent. Thus such a feature is not considered to patentably distinguish the instant application from the prior art. Overflow weirs and drains are not considered to be patentably distinguishable limitations over the prior art, especially considering that apparatus 1 of Aisa discloses overflow means and a drain. One of ordinary skill knows of the benefit of including an overflow/drain means on a container to prevent an undesirable scenario of a pressure build up or flooding of the apparatus. Aisa discloses a float device G in the salt/brine container. It would have been obvious at the time of invention to modify Aisa and include a pump in place of valve EV, as taught by Iizuka, in order to regenerate resins in the water softener.

Art Unit: 1711

9. Aisa and Iizuka do not disclose a water softener bypass. Boirum discloses a bypass valve for diverting the flow of water in a domestic water system to bypass a service unit such as a water softener. Thus, the idea to bypass a water softener based on a condition is known in the prior art. The device includes a controller and appropriate means to detect a sensed condition. Considering the prevalence of three-way control valves in the art, it would have been obvious at the time of invention to modify Aisa and Iizuka and further include a bypass system, as taught by Boirum, in order to bypass the water softener when it is not needed. Solenoid valves are common in the art and their mere inclusion alone is not considered to be patentable.

10. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Aisa et al. in view of Iizuka and Boirum and further in view of Milocco (EP 0545127). Aisa does not discuss where the apparatus is located. Milocco teaches including a water softener in the door of the washing machine, which is a hollow wall. It would have been obvious at the time of the invention to include the water softening device in a wall, as disclosed by Milocco, as it was known to do so at the time of invention.

11. Claims 18 rejected under U.S.C. 103(a) as being unpatentable over Aisa et al. in view of Iizuka and Boirum and further in view of Maunsell (WO 01/26532). Aisa does not disclose a washing machine with an open topped chamber that is removable from the cabinet. Maunsell discloses that a washing machine of this type was known at the time of invention (see abstract and figures 2-3, 7-8). It would have been obvious at the time of invention to modify Aisa in view of Iizuka, and further include the softening device in a drawer type washing machine, as disclosed by Maunsell, as it was a known washing machine design at the time of invention.

Art Unit: 1711

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art Unit  
1711

JMH